

FROLOVA, Ye. K.

Cand Geol-Min Sci - (diss) "Petrography of the Lower Permian Deposits of the Kuybyshevskiy Volga Region and the northwestern part of Orenbugskaya Oblast." Kuybyshev, 1961. 14 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Kuybyshev Industrial Inst imeni V. V. Kuybyshev); 150 copies; price not given; author not indicated on cover; (KL, 6-61 sup, 204)

FROLOVA, Ye.K.

Structure of carbonate rocks in Lower Permian sediments of
the Volga Valley portion of Kuybyshev Province. Trudy Gipro-
vostoknefti no.3:43-57 '61. (MIRA 16:7)

(Kuybyshev Province—Rocks, Carbonate)

FROLOVA, Ye.K.

Structure of sulfate formations in Lower Permian sediments
of the Volga Valley portion of Kuybyshev Province. Trudy
Giprovostoknefti no.3:58-62 '61. (MIRA 16:7)

(Kuybyshev Province--Sulfates)

FROLOVA, Ye.K.

Mineralogical and petrographical characteristics of lower Kazanian
sediments in the Kalinovka-Novostepanovskoye gas-oil fields. Trudy
Giprovtoknefti no.3:63-84 '61. (MIRA 14:12)

(Kuybyshev Province--Gas, Natural--Geology)

(Kuybyshev Province--Petroleum geology)

(Orenburg Province--Gas, Natural--Geology)

(Orenburg Province--Petroleum geology)

ACC NR: AT7006292 (N) SOURCE CODE: UR/0000/66/000/000/0039/0045

AUTHOR: Kuznetsova, V.P.; Smetankina, N.P.; Chernaya, N.S.; Oprya, V.Ya.; Frolova, Ye.K.

ORG: none

TITLE: Study of the electrical and physical properties of polymers prepared from organosilicon tertiary diacetylenic alcohols (communication 9)

SOURCE: AN UkrSSR. Sintez i fiziko-khimiya polimerov (Synthesis and physical chemistry of polymers). Kiev, Naukova dumka, 1966, 39-45

TOPIC TAGS: organic semiconductor, semiconducting polymer, organosilicon compound

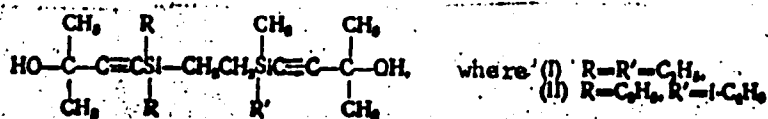
ABSTRACT: A study has been made of the electrical properties of polymers prepared by the thermal polymerization of certain tertiary diacetylenic organosilicon alcohols of symmetric or unsymmetric structure having an ethylene

Card 1/3

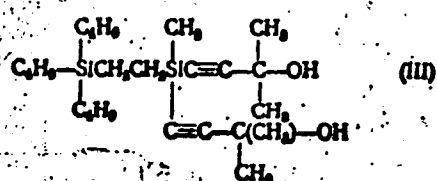
UDC: none

ACC NR: AT7006292

bridge between the silicon atoms:



and



Card 2/3

ACC NR: AT7006292

The polymers were subjected to heat treatment at 200—600°C under argon. The heat-treated polymers were either readily fusible resins, or fine powders which could not be pressed at pressures up to 10^4 kg/cm² and temperatures of several hundred degrees centigrade. Therefore, conductivity measurements were carried out for samples directly under pressure (10^3 kg/cm²). It was found that prior to heat treatment, the polymers were typical insulators (ρ , $> 10^{14}$ ohm cm). Heat treatment at 300—500°C produced products with organic-semiconductor and paramagnetic properties (unpaired spin concentration, 10^{18} — 10^{19} spin/g). The electrical conductivity of the polymers had no ionic component. The temperature dependence of resistivity measured at 20—150°C obeyed an exponential law. The resistivity at 20°C was of the order of 10^{11} to 10^6 ohm·cm, and the activation energy for conduction was 0.3—0.5 ev. Each polymer had a critical heat-treatment temperature beyond which resistivity dropped sharply; for polymers of I and II it was about 400°C, and for the polymer of III, about 300°C. IR spectroscopy and weight loss data suggest that on heat treatment at 300—400°C, the polymers undergo partial degradation and formation of conjugated regions. Orig. art. has: 3 figures. [SM]

SUB CODE: 11, 20/ SUBM DATE: none/ ORIG REF: 004/ ATD PRESS: 5116

Card 3/3

ACC NR: AP7000202

(A)

SOURCE CODE: UR/0079/66/036/011/2005/2009

AUTHOR: Smetankina, N. P.; Kuznetsova, V. P.; Lyukas, S. D.; Bologolevina, G. N.;
Frolova, Ye. K.

ORG: Institute of Chemistry of High Molecular Compounds, Academy of Sciences,
Ukrainian SSR (Institut khimii vysokomolekulyarnykh soyedineniy Akademii nauk Ukrain-
skoy SSR)

TITLE: Synthesis and study of functional organosilicon compounds with a hydrocarbon
bridge between the silicon atoms. Part 11: Acetylenic alcohols of disilylmethylene
and -ethylene and some of their conversions

SOURCE: Zhurnal obshchey khimii, v. 36, no. 11, 1966, 2005-2009

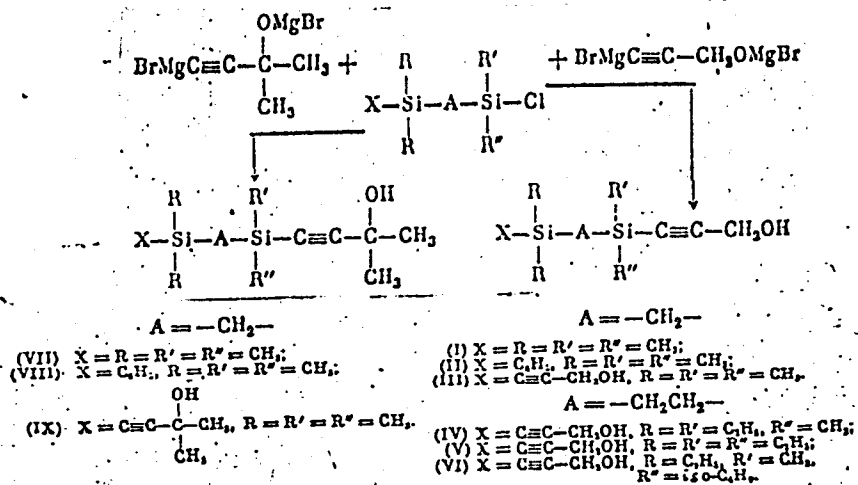
TOPIC TAGS: acetylene compound, organosilicon compound, alcohol

ABSTRACT: Continuing their studies, the authors investigated primary and tertiary
acetylenic organosilicon alcohols and glycols and some of their conversions. Acetyl-
enic alcohols of the disilylmethylene and -ethylene series were synthesized as fol-
lows:

Card 1/5

UDC: 661.718.5+547.362

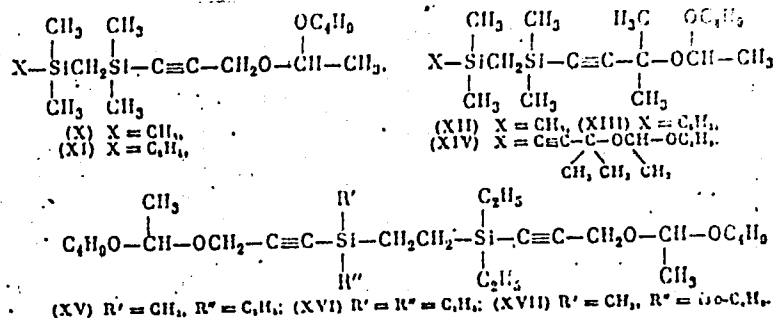
ACC JR: AP7000202



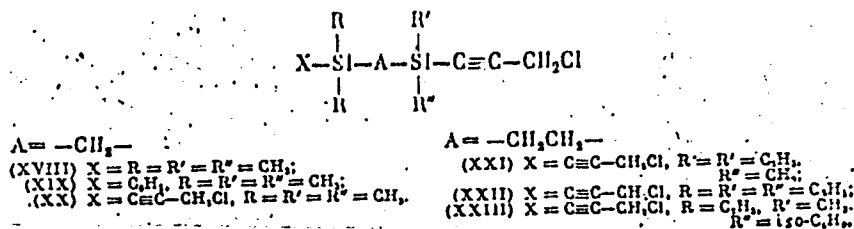
In the presence of HCl, the alcohols and glycols obtained readily react with vinyl butyl ether to give the corresponding acetals:

Card 2/5

ACC NR: AP7000202



Substitution of chlorine for the hydroxyl group in primary acetylenic alcohols by means of thionyl chloride in the presence of pyridine formed products of the type



Card 3/5

ACC NR: AP7000202.

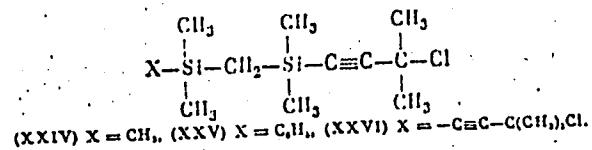
Table 1

Compound No.	Yield (%)	B P (pinnaud)	n_D^{20}	d_4^{20}	MR_2		Formula
					measured	calculated	
I	50	90-92° (5)	1.4637	0.8812	62.71	62.85	$C_9H_{20}OSi_2$
II	57	112 (2)	1.5265	0.9865	82.27	82.67	$C_{14}H_{22}OSi_2$
III	50	130-131 (0.14)	1.5000	0.9910	71.37	71.89	$C_{11}H_{20}O_2Si_2$
IV	40	130-145 (0.15)	1.4950	0.9532	90.48	90.38	$C_{13}H_{28}O_2Si_2$
V	30	142-147 (0.14)	1.4920	0.9572	91.12	93.43	$C_{16}H_{30}O_2Si_2$
VI	36	150-152 (0.15)	1.4940	0.9500	99.47	99.66	$C_{17}H_{32}O_2Si_2$
VII	51	62-63 (2) *	1.4558	0.8535	72.55	72.14	$C_{11}H_{21}OSi_2$
VIII	59	140-142 (5)	1.5123	0.9525	91.57	91.96	$C_{16}H_{26}OSi_2$
IX	57	117-119 (2) **	—	—	—	—	$C_{15}H_{28}O_2Si_2$
X	72	130-132 (3)	1.4505	0.8696	92.98	92.47	$C_{13}H_{27}O_2Si_2$
XI	61	175-180 (3)	1.5118	0.9830	112.70	112.97	$C_{20}H_{31}O_2Si_2$
XII	75	111-114 (3)	1.4460	0.8627	101.57	101.75	$C_{17}H_{36}O_2Si_2$
XIII	60	162-165 (2)	1.5061	0.9527	121.60	121.57	$C_{22}H_{38}O_2Si_2$
XIV	70	167-170 (3)	1.4595	0.8995	151.12	149.70	$C_{27}H_{52}O_2Si_2$
XV	40	157-160 (0.15)	1.4770	0.9324	150.50	149.93	$C_{27}H_{52}O_2Si_2$
XVI	40	165-178 (0.15)	1.4735	0.9303	154.30	154.71	$C_{28}H_{54}O_2Si_2$
XVII	30	145-147 (0.15)	1.4750	0.9276	159.20	159.20	$C_{29}H_{56}O_2Si_2$
XVIII	60	71-72 (2)	1.4645	0.9172	65.90	66.16	$C_9H_{19}ClSi_2$
XIX	58	170-173 (4)	1.5245	1.0040	85.66	85.98	$C_{11}H_{21}ClSi_2$
XX	63	140-145 (6)	1.4870	1.0205	78.16	78.51	$C_{11}H_{18}Cl_2Si_2$
XXI	50	113-115 (0.15)	1.4959	0.9349	97.29	96.94	$C_{13}H_{26}Cl_2Si_2$
XXII	50	115-117 (0.15)	1.4900	0.9854	101.90	101.45	$C_{16}H_{28}Cl_2Si_2$
XXIII	50	108-110 (0.15)	1.4886	0.9656	107.50	106.20	$C_{17}H_{30}Cl_2Si_2$
XXIV	59	80-82 (7)	1.4525	0.8675	76.84	75.95	$C_{11}H_{23}ClSi_2$
XXV	63	160-163 (8)	1.5115	0.9706	95.44	95.27	$C_{16}H_{25}ClSi_2$
XXVI	65	112-113 (5)	1.4820	0.9713	97.86	97.10	$C_{15}H_{26}Cl_2Si_2$

Card 4/5

ACC NR: AP7000202

In addition, the following γ -chloro derivatives of tertiary alcohols were obtained by chlorination:



The yields and physical constants of the synthesized compounds are given in Table 1. Orig. art. has: 2 tables.

SUB CODE: 07/ SUBM DATE: 12Jul65/ ORIG REF: 005/ OTH REF: 001

Card 5/5

PREYS, M.O.; FROLOVA, Ye.N.

Use of steam-oxygen blast in shale distillation generators. Trudy
VNIIPS no.3:199-208 '55. (MLRA 8:12)
(Baltic Sea region--Oil shales) (Hydrocarbons)

Frolova, E.N.

USSR/Zooparasitology - Parasitic Protozoa.

G-1

Abs Jour : Ref Zhur - Biol, No 10, 1958, 43367

Author : Frolova, E.N.

Inst : -

Title : Parasitic Ciliates of Astomata Group of Oligochaeta of Eastern Murman.

Orig Pub : Zool. zh., 1957, 36, No 9, 1281-1291.

Abstract : In oligochaeta *Clitellio arenarius*, *Lumbricillus lineatus*, *L. profugus*, *Marionina crassa* and *Enchuteraeus albidus*, 4 species of Astomata are identified: *Radiophrya prolifera* (3 forms), *R. grandis* sp. n., *Mesnillella fastigata*, and *Anoplophrya filium* (descriptions are given). Wide variations are noted in *R. prolifera*, due to its habitat on different species of hosts and the difference in their ecology.

Card 1/1

COUNTRY : USSR G
 CATEGORY : Zooparasitology.Parasitic Worms.General Problems
 ABS. JOUR. : RZhBiol., No. 4 1959, No. 14976
 AUTHOR : Erolova, Ye. N.
 INST. : Leningrad State Pedagogical Institute*
 TITLE : Infectivity of Molluscs of Lake Pertozero by
 Parthenogenetic Generations and Larvae of
 Trematodes
 ORIG. PUB. : Uch.zap.Leningr.gos.ped.in-ta Im. A.I.Gertsen,
 1958, 143, 217-259
 ABSTRACT : Over 8 thousand molluscs belonging to 17 species
 were dissected. The average percentage of infes-
 tation was 41.2. 27 species of cercariae were
 discovered. The most various cercarial fauna
 is found in Galba palustris, Limnaea stagnalis,
 Coretus corneus and Bithynia tentaculata. Some
 * Im. A.I. Gertsen
 CARD: 1/2 6

PREYS, V.F., doktor tekhn. nauk; FROLOVICH, Ye.N., inzh.

Feeding of billets in automatic transfer machine lines.
Mekh. i avtom. proizvod. 18 no.4:7-11 Ap'64. (MIRA 17:5)

MIKHINA, Tat'yana Nikolayevna; FROLOVA, Yelena Nikolayevna; SHCHERBINA, Tat'yana Vladimirovna; KAPYSHEVA, V.S., red.; MURASHOVA, V.A., tekhn. red.

[Laboratory manual on the zoology of invertebrates] Praktikum po zoologii bezpozvonochrykh. Pod red. E.N.Frolovoi. Moskva, Vysshaia shkola, 1962. 207 p. (MIRA 15:11)
(Invertebrates)

GOTOVTSEVA, L.A.; ZERNOVA, K.N.; SHIKHER, M.G.; FROLOVA, Y.N.

Simplified method of continuous alkali-peroxide bleaching of
fabrics. Nauch.issl.trudy IvNITI 25:154-182 '61. (MIRA 15:10)
(Bleaching) (Textile fabrics)

KAZAKOV, N.F., red.; FROLOVA, Ye.S., otv. za vypusk; SUKHAREVA, R.A.,
tekh.n.red.

[New problems in metal cutting] Novye voprosy rezaniia
metallov. Moskva, 1958. 38 p. (Peredovoi opyt proizvodstva.
Ser. "Tekhnologiya mashinostroeniia," no.24. Obrabotka metallo
rezaniem). (MIRA 13:1)

1. Moskovskiy Dom nauchno-tekhnikeskoy propagandy imeni F.E.
Dzherzhinskogo.
(Metal cutting)

DEOTYARENKO, Nikolay Stepanovich; BELOSTOTSKIY, L.Ya., red.; PROLOVA,
Ye.S., otv. za vypusk; SUKHAROVA, R.A., tekhn.red.

[Mechanization and automation in the manufacture of metal-cutting
tools] Mekhanizatsiia i avtomatizatsiia v instrumental'nom pro-
izvodstve. Moskva, 1959. 50 p. (Moskovskii dom nauchno-tekhnicheskoi
propagandy. Peredovoi opyt proizvodstva. Seriya: Progressivnaia tekhnologiya
mashinostroeniia, vyp. 8).

(MIRA 13:10)

(Metal-cutting tools)

(Automation)

TILLES, Semen Aronovich; LETENKO, V.A., red.; FROLOVA, Ye.S., otv. za
vypusk; SUKHAREVA, R.A., tekhn.red.

[Economic efficiency of the use of special and multipurpose
attachments with interchangeable parts in the machinery industry]
Ekonomicheskaya effektivnost' primeneniya spetsial'nykh i univer-
sal'no-sbornykh prispособlenii v mashinostroenii. Moskva, 1959.
63 p. (Moskovskii dom nauchno-tekhnicheskoi propagandy. Peredovoi
opyt proizvodstva. Seriya: "Ekonomika i organizatsiia proizvodstva,"
no.5). (MIRA 13:4)

(Machine tools--Attachments)

PROLOVA, Ye.S.

Conference on over-all standardization of elements of production
processes. Standartizatsiia 24 no.2:59-60 F '60.
(MIRA 13:5)

(Standardization)

FROLOVA, Ye. S.

Improvement of the quality of metal-cutting tools is an urgent objective. Standartisatsiia 27 no.5:56-57 My '63.
(MIRA 16:6)

(Metal-cutting tools)

L 27981-66 EWP(k)/EWT(d)/EWP(h)/EWP(l)/EWP(v) JT

ACC NR: AP6017737

SOURCE CODE: UR/0028/65/000/006/0031/0033

AUTHOR: Frolova, Ye. S. (Referent)ORG: MDNTP

TITLE: Conference on the problems of unitization and standardization

SOURCE: Standartizatsiya, ²⁹no. 6, 1965, 31-33

TOPIC TAGS: scientific conference, machine tool industry, precision instrument industry, automation, satellite payload component, artificial earth satellite

ABSTRACT: A conference on the problems of unitization and standardization of the means of production in machine building and instrument manufacture was held in February 1965²⁹ at the Moscow House for Scientific-Technical Propaganda by the State Committee on Standards, Measures and Measuring Instruments USSR.

The chairman of the state committee, Professor V. V. Boytsov, Dr. of Technical Sciences, discussed recent extensive measures taken to unitize and standardize new machine models and methods of manufacturing them, and admitted that the USSR machine-tool manufacturing industry produces scarcely any convertible automatic lines which can be retooled for production of items of various sizes, types and models.

Card 1/2

L 27981-66

ACC NR: AP6017737

V. N. Borisevich, director of the All-Union Scientific-Research Technological Institute of Instrument Building, Moscow, discussed unitized bunkering and charging equipment. 7

Professor G. A. Shaumyan, Dr. of Technical Sciences, discussed the flexibility of technology as one of the most important phases of the automation problem.

Engineer Ye. I. Vlaznev discussed new standardized sections for automated lines which can be combined to form small automated lines for processing the components installed in artificial earth satellites.

Experience in using unitized machine tools for making precision parts for instruments and future plans for improving the practice were reported by V. A. Samoylov. 12 14 JPRS

SUB CODE: 05, 13, 22 / SUBM DATE: none

Card 2/2 110

FROLOVA, Ye. V.

M

Country : USSR

Category: Cultivated Plants. Grains.

Abs Jour: RZhBiol., No 11, 1958, No 48875

Author : Frolova, Ye. V.

Inst : ~~Penza Agricultural Inst.~~

Title : Testing Corn Varieties.

Orig Pub: Sb. tr. Penzensk. s.-kh. in-ta, 1956, vyp. 1,
59-66

Abstract: The Institute developed the following varieties:
the earliest, low - Pervenets and Kazenskaya 108;
productive - hybrid Bukovinski 2; late varieties -
inter-strain hybrids VIR-25, VIR-37 and Minnesota
13; varieties which reached milky-waxy and milky

Card : 1/2

Abs Jour: RZhBiol., No 11, 1958, No 48875

APPROVED FOR RELEASE: 06/13/2000
and the Early Grushevskaya.

CIA-RDP86-00513R000513810018-4

Card : 2/2

M-31

FROLOVA Ye. V.

M

Country : USSR

Category: Cultivated Plants. Grains.

Abs Jour: RZhBiol., No 22, 1958, No 100253

Author : ~~Frolova, Ye. V.~~

16

Polytherm of the ternary system $\text{KNO}_3\text{-K}_2\text{Cr}_2\text{O}_7\text{-H}_2\text{O}$. M. I. Ravitsch and E. V. Frolova (*Bull. Acad. Sci., U.R.S.S., Cl. Sci. Chim.*, 1944, 92—94; cf. A., 1944, 1, 250).—Solubility isotherms for the systems $\text{KNO}_3\text{-H}_2\text{O}$, $\text{K}_2\text{Cr}_2\text{O}_7\text{-H}_2\text{O}$, and $\text{KNO}_3\text{-K}_2\text{Cr}_2\text{O}_7\text{-H}_2\text{O}$ are determined at 0°, 25°, 50°, and 80°. No evidence of formation of compounds is found. Above 116° ($\text{KNO}_3\text{-K}_2\text{Cr}_2\text{O}_7$) the solubility curve passes into the fusion curve up to the point 338° (3.3% $\text{K}_2\text{Cr}_2\text{O}_7$). In this the system resembles $\text{NaNO}_3\text{-Na}_2\text{Cr}_2\text{O}_7\text{-H}_2\text{O}$ (*ibid.*). Tables and curves are given. R To.

17 AND THE REPAIR PROCESSING AND PROPERTIES MODEL

2

CA

Solubility in the system $\text{CaCO}_3\text{-NaCl CO}_3\text{-H}_2\text{O}$ at 28°. H. B. Ehterina and R. Y. Kryzova, *Akad. Nauk S.S.S.R., Referaty, Otdel. Khim. Nauk* 1943, 33; cf. C.A. 46, 2971°.—Up to NaCl 2 moles/l. and p_{CO_2} 1 atm., the soly. of CaCO_3 is expressed empirically by $-\log a = 3.9081 - 0.3310 \log p_{\text{CO}_2}$ where a = activity. N. Thon

ASTM-SLA METALLURGICAL LITERATURE CLASSIFICATION

ROOM NUMBER

SECTION

DATE

BY

REMARKS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

PROCESSING AND PROPERTY INDEX																	
<div style="position: relative;"> CA 2 <p style="margin-top: 50px;">Solubility in the system $\text{CaCO}_3\text{-CaSO}_3\text{-NaCl-CO}_2\text{-H}_2\text{O}$ at 25° C. B. B. Mitrova and N. V. Frolova (Institute of General and Inorganic Chemistry, Academy of Sciences of the U.S.S.R.). <i>Comp. rend. acad. sci. U.S.S.R.</i> 47, 33-6 (1945); <i>Doklady Akad. Nauk S.S.S.R.</i> 47, 34-6(1945).— The solubilities of CaCO_3 and CaSO_3 in water contg. 0-2% NaCl at CO_2 pressures of 0.018-1.0 atm. are given. The data are expressed graphically in terms of the $\text{Ca}(\text{HCO}_3)_2$, and CaSO_4 contents of the solids, at equil. Use of the re- sults to predict soln. of calcite and gypsum in river waters is indicated. J. H. Riley</p> </div>																	
A.I.E.A. METALLURGICAL LITERATURE CLASSIFICATION																	
SOURCE OF INFORMATION																	

FROLOVA, E.V.

Solubility of calcite in the presence of carbon dioxide and sodium chloride. K. B. Shternina and E. V. Frolova (M. S. Kurnakov Inst. Gen. Inorg. Chem., Acad. Sci., U.S.S.R., Moscow), *Invent. Sekora Fiz.-Khim. Anal. Inst. Obshch. Khim., Akad. Nauk S.S.S.R.* 21, 271-87 (1952).—Island spar crushed to $+0.5 \mu\text{m}$. was used, and the expts. were made at $25 \pm 0.05^\circ$. In the system $\text{CaCO}_3\text{-NaCl-CO}_2\text{-H}_2\text{O}$ equil. was attained only after 1-2 months. To get the soly. of a sparingly sol. salt are required the activity (a) and the coeff. of activity (γ) of this salt. a was detd. in dil. solns. and was calcd. from the Debye-Hückel equation assuming that the size of ions increases directly with the concn. of the sol. salt. This relation can be expressed by $b = b_s + (b_w / \Sigma m_i Z_i^2) \Sigma m_i Z_i^2$, sat.

where b is the av. size of ions in the system, b_s and b_w are the av. crystallographic sizes of ions of the sparingly (s) and well (w) sol. salts, $\Sigma m_i Z_i^2$ is the ionic strength of the added sat.

well-sol. salt in satd. soln., and $\Sigma m_i Z_i^2$ is the ionic strength of the given soln. of the added well-sol. salt. The soly. of calcite and gypsum in the presence of NaCl had a max. but the corresponding γ had a min. If it were assumed that the av. distance between ionic centers is independent of concn., then the soly. of gypsum would be constantly increasing and γ constantly decreasing with increasing concn. of NaCl. In the case of gypsum the max. on the soly. curve corresponds to the min. on the γ curve which in turn is detd. by the increase in the av. distance between ions with increasing concn. of NaCl. In the case of calcite, the situation is more complicated, since the a of $\text{Ca}(\text{HCO}_3)_2$ does not remain const. but changes with CO_2 content according to $a = 0.0213 [\text{CO}_2]^{1/2}$. Also NaCl has a salting-out effect on CO_2 . Thus, NaCl on the one hand increases the soly. of CaCO_3 even as of CaSO_4 and on the other hand it lowers the soly. of CaCO_3 by decreasing the soly. of CO_2 . M. Hosh

SHTERNINA, E.B.; FROLOVA, Ye.V.

Removal of ballast carbonates from Kara-Tau phosphorite ores.
Zhur.prikl.khim. 35 no.4:751-756 Ap '62. (MIRA 15:4)

1. Institut obshchey i neorganicheskoy khimii imeni N.S.Kurnakova
AN SSSR.

(Kara-Tau--Phosphorites) (Carbonates)

FROLOVA, Yu. M .

Kuybyshev Sci. Research Inst. Epidemiology & Microbiology, NKVdrava, RSFSR. (-1944-).

"Experiment with Employment of Concentrated Toxin in Lanolin for Obtaining of the Serum Antiperfringens."

Zhur. Mikrobiol., Epidemiol., i Immunobiol., No. 10-11, 1944.

Figure 2.1.

Dist: 4E3d

✓ Growing of homogeneous Scheelite salt crystals from
supersaturated solutions. N.Y. Academy of Sciences
and Z. I. Kopylov. Conditions for the growth of
order to increase the growth rate of crystals. In
tals, high supersaturation is required. Above 41% I solns begin to form
K tartrate. At 52% the crystals are large enough for
for the decomposition of the crystals. The crystals
supersat. solns. The crystals are produced in a
specified time. The crystals are produced in a
produce large crystals. At 52% large crystals are
hrs. Normally, the crystals are produced in a
fast-grown crystals are produced in a

4

SAPIR, A.D.; BIRYUKOV, N.D.; KATAL'NIKOV, S.G.; FROLOVA, Z.M.;
HEGINA, V.R.; SHUVANOVA, N.V.; KRASNEHENNIKOVA, Ye.P.;
BLINOVA, R.V.

Exchange of experience. Zav.lab. 28 no.6:670-671 '62.

(MIRA 15:5)

1. Chelyabinskiy metallurgicheskiy zavod (for Sapir).
2. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR (for Biryukov).
3. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva (for Katal'nikov, Frolova).

(Chemistry, Analytical)

ANDRIANOV, K.A.; SIPYAGINA, M.A.; GASHNIKOVA, N.P.; FROLOVA, Z.M.

Synthesis of α, ω -disodiumhydroxymethylphenylsiloxanes and
 α -sodiumhydroxy- ω -trimethyl(triphenyl)siloxymethylphenylsil-
oxanes. Izv. AN SSSR. Neorg. mat. 1 no.9:1441-1446 S '65.
(MIRA 18:11)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
Lomonosova.

85147

S/19/60/000/007/010/015
B004/B056

15.8000 1526, 1460

AUTHORS: Danyushevskiy, A. S., Frclova, Z. N.

TITLE: Investigation of the Stabilization of Polyvinyl Chloride. Communication I. The Stabilizing Effect of Epoxy Resins 15

PERIODICAL: Plasticheskiye massy, 1960. No. 7, pp. 43 - 45


TEXT: In the introduction, the authors give a survey of Western patents on the stabilization of polyvinyl chloride (PVC). Their own experiments showed that in the stabilization of PVC alone with ED-5 (ED-5) or ED-6 (ED-6) epoxy resins, the plastic takes on a reddish-brown color, whereas the combination of the epoxy resin with stearates only causes the substance to become weakly yellow. The authors give their data concerning decomposition temperature, thermal stability and stability to the action of light in four tables. Table 1: Stabilizing of PVC with ED-5 and 1/200 mole lead stearate or lead silicate; ratio of PVC to BCF (VSF) plastifier 100 : 45. Lead stearate proved to be effective, whereas lead silicate did not. In Table 2

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Investigation of the Stabilization of
Polyvinyl Chloride. Communication I. The
Stabilizing Effect of Epoxy Resins

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B004/B056

the stabilizing effects of the epoxy resin ED-5, ED-6 and 5N (5N) were compared. The thermostability with an addition of ED-5 or 5N was greater than with ED-5. With 5N particularly high frost-stability (-55°C) was obtained. Table 3 gives the values for stress strength, elongation, volume stability, decomposition temperature, thermal stability, and photostability at different contents of ED-5. If the ED-5 content is decreased, only light resistance is diminished. Further, the β -naphthoxypropene oxide synthesized at the NIIPP (Scientific Research Institute of Polymerization Plastics) (1% of weight per PVC) in combination with Zn-, Ca-, Ba-, and Cd-stearate was tested (Table 4) as the lowest-molecular epoxy compound. By means of this compound, and in combination with cadmium stearate, a colorless transparent PVC-composition was obtained. The chemical engineers A. I. Rybakova and L. F. Budilina took part in these experiments. There were 4 tables and 22 references: 9 Soviet, 8 US, 7 British, and 1 German.



Card 2/2

DANYUSHEVSKIY, A.S.; PARLASHKEVICH, N.Ya.; FROLOVA, Z.N.; SHENTSI, I.S.

Automatic control of the kinetics of polyvinylchloride decomposition.
Plast.massy no.2:69-70 '61. (MIRA 14:2)
(Ethylene) (Plastics—Testing)

RUD', G.Ya.; MALTABAR, V.M., kand.sel'skokhoz.nauk; UL'YANKIN, M.G.;
ANDREYEV, V.V.; FROLOVA, Zh.N.; REVENOK, I.D.

Mechanized continuous V-KS-100 production line for the processing
of grapes to brandy alcohol. Trudy MNIIP 4:3-12 '64.

(MIRA 18:1)

PAVLOV, V.N.; KUROCHKINA, N.N.; FEDOROVA, Z.N.

Polarographic determination of peroxides. Zav. lab. 30
no.5:539-540 '64. (MIRA 17:5)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov
i organicheskikh produktov.

ANTONOVSKIY, V.L.; FROLOVA, Z.S.

Polarographic study of cyclohexanone peroxides. Zhur. ob. khim.
35 no.6:954-957 Je '65. (MIRA 18:6)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov
o organicheskikh produktov, filial v Novokuybyshevske.

ANTONOVSKIY, V.I.; FROLOVA, Z.S.

Determination of cyclohexanone peroxides by polarography. Zhur.
anal. khim. 19 no.6:754-756 '64. (MIRA 18:3)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i
organicheskikh produktov, filial v Novokuzbyshevske.

27085

S/143/61/000/001/004/006
A207/A126

26.2194
AUTHORS:

Frolov, L. B., Engineer, Frolova, Z. V.

TITLE:

Electronic automatic safety device

PERIODICAL:

Energetika, no. 1, 1961, 59 - 64

TEXT:

A description is given of the new safety device used in the protection of turbines against overspeeding. It is intended for high-speed, mostly experimental, turbines, but can be used in other machines as well. Contrary to the more widely used mechanical automatic safety devices, the machine in question is based on electronics and has a high reliability. The turbines are protected in the following manner: a transmitter of sinusoidal signals of the induction type is located on the turbine shaft. Its frequency is proportional to the turbine rotations. The signal from the transmitter is fed to the automatic safety device. With an increase in the number of revolutions of the turbine close to the limit, the frequency of the transmitter signal reaches a frequency of f_0 , to which the automatic device is set. The latter switches on an electromagnet with a spring, acting then upon the valve. In the position "set", the electromagnet is switched on and presses the spring. At the signal "stop", the relay of the automatic device

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A207/A126

Electronic automatic safety device

breaks the circuit of the electromagnet, the spring moves the valve, acting through a row of intermediate links on the vent. The vent has a special signalling device. If the vent has not closed after a certain period of time by control of the automatic device, the relay comes into action, which switches in the auxiliary elements of the accident-prevention device of the turbine. The principle of the device is as follows: an intensified signal is fed to the double-T bridge and to the phase-shifting chain of the compensating channel. Intensified signals from the T-shaped bridge and from the phase-shifting chain, are fed to the phase detector. It is assumed that the difference of the main and compensating channels is equal to zero at frequencies less than f_0 . At frequencies greater than f_0 , the relay R_1 , disconnects the electromagnet of the performing element. From the main amplifier, the signal is fed also to the selective amplifier of the auxiliary channel. The latter is an amplifier with a negative feed-back connection through the double-T bridge. The outlet of the amplifier through the locked detector, enters relay R_2 . At a frequency of f_0 relay R_2 begins to work regardless of R_1 , disconnecting the circuit of the electromagnet of the performing element. A change in the capacity limit is brought about by regulating the frequency f_0 of the bridge which, in turn, is carried out by blocking alternating resistances, (for smooth change-over) and switches (for fixed values). The regulating of f_0 of both channels and the generator is carried out by a handle and has a graduated scale. The bridge is made of

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Electronic automatic safety device

S/143/61/000/001/004/006
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temperature-resistant elements. The time relay is started by a signal of any of the relays R_1 and R_2 , and after a certain period of time a pulse is fed to the auxiliary circuits of the valve closing. If in this period of time the signalling device for closing the valve has begun to function, then the circuit leading to the performing elements is broken. It is pointed out that a failure of two specially selected elements could deprive the turbine of its protection. This deficiency can be eliminated and the dependability of the device increased by introducing a block with four automatic protection units. Thus, the instrument has a design of assembly units. The instrument also has a periodic service checker which is a CQ -60 (SD-60) motor, with a reducing gear and a contact drum. The tests were carried out on an experimental radial turbine at 15,000 - 20,000 rpm. The following advantages of the electronic device are listed as compared to the widely-used mechanical type: 1) it can be used in high-speed machines, 2) it is easy to check, can be tested during performance, 3) the capacity limit can be easily changed, 4) it can function without a lubricating system. The disadvantages of the device are: the comparatively complex scheme, which is connected with a lesser reliability of the parts. There are 4 figures.

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A207/A126

Electronic automatic safety device

ASSOCIATION: Moskovskiy ordena Lenina energeticheskoy institut, Kafedra parovykh
i gazovykh turbin (The Moscow Order of Lenin Power Engineering De-
partment of Steam and Gas Turbines)

SUBMITTED: March 21, 1960

Card 4/4

FROLOVA-RAYEVSKAYA, I.A.

Algae in Rybnoye Lake and in waters near to Laleye Rybnoye Lake in the vicinity of the city of Brevary. Nauk.zap.Kiev.un.12 no.7:127-152 '53.
(Rybnoye Lake---Algae) (MIRA 9:10)

POLINOVSKIY, V., inzh.; FROLOVICH, E., inzh.

Device for remote control of elevator mechanisms. Muk.-elev.
prom. 28 no.10:5-6 O '62. (MIRA 16:1)

1. Odesskiy proyektno-konstruktorskiy institut pishchevoy
promyshlennosti.

(Grain elevators) (Remote control)

FROLOVICH, Ye.N., inzh.

Elements for the design of interoperational conveying devices in automatic transfer lines. Trudy TMI no.16:56-77 '62. (MIRA 17:2)

FROLOVICH, Ye.N., inzh.

Devices for conveying machined parts in automatic transfer
machine lines. Vest.mashinostr. 42 no.7:62-65 J1 '62.

(MIRA 15:8)

(Feed mechanisms)

FRÖLOVSKAYA, T.P.

Country : USSR
Company: S-11 Atomic Mineral Particles

File four: Ethanol., No 14, 1958, No 63096

Author : Avdamin, N. S.; M. Levadova, Ye. P.; M. Shulova,
Ye. D.; Prilovskaya, I. P.

Institute : Moscow University
Title : The Influence of Islamism and Marxism on the Muslim World
Date : February, 1968

the influence of lithium and potassium on the metabolism in plants and on the composition of the crops.

Orig. Pub: *Westn. M.-C. univ. Ser. Biol., Botanical, Geol.,*
Geogr., 1957, No 2, 89-97.

Abstract: According to the results of more than 100 regenerative experiments with 20 different plants carried out during 6 years by Moscow University of soil-pedologic, primarily loosely-cultivated soil cells or in sandy cultures, data are reported which relate

Wt : 10

5-42

the leaves of *Artemisia* are not so much adapted to active forms of life as the leaves of *Salix* and *Populus* are. The form of the leaf and the structure of the venation are the basis of the differences between the leaves of the deciduous and the evergreen plants. The leaves of the deciduous plants are adapted to the conditions of the temperate zone, while the leaves of the evergreen plants are adapted to the conditions of the cold zone. The leaves of the deciduous plants are adapted to the conditions of the temperate zone, while the leaves of the evergreen plants are adapted to the conditions of the cold zone.

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cases of MI and particularly of MI the following are discussed: a) the majority of patients; b) the total supply of exchange due to the reduction of MI also on "normal" sugars, and under the action of insulin; c) the quantitative ratio between the carbohydrates in glucose; d) changes in exchange as a consequence of an increase in the ratio between non-saturated and saturated fatty acids; e) the quantitative exchange due to reduction in the amount of fatty acids; f) the action of insulin as the result of fatty acids and reduction in the amount of fatty acids; g) the influence of acid and alkaline soils which, in addition to the action of insulin, is particularly of importance in the treatment of MI; h) the influence of the content of cholesterol in plants on the development of atherosclerosis and its sensitivity to it; the development of atherosclerosis and its sensitivity to it.

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their fruiting -- reduced, processes of the formation of nutritive organs are disturbed as well as of fertilization and ripening of grain. This leads to a sharp quantitative and qualitative reduction in the harvest. -- E.F. Shtolov

1. DRUBLYANETS, E. E. AND FROLOVSKAYA, YE. B.
2. USSR (600)
7. "The Spread of Bacterial Microflora in Hydrolysis Plants", Sbornik Trudov Vsesoyuzn. Nauch.-Issled. In-ta Gidroliznoy i Sul'fitno-Spirovoy Promyshlennosti (Symposium of Works of the All-Union Science-Research Institute of the Hydrolysis and Sulfite-Alcohol Industry) Vol 3, 1950, pp 141-155
9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132

L 43877-65 EWT(1)/EEC(t)

ACCESSION NR: AP5010931

UR/0286/65/000/007/0116/0116

AUTHOR: Frolovskiy, I. L.

TITLE: A device for measuring the temperature field of the stream of outflow gases.
Class 42, No. 169827

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 7, 1965, 116

TOPIC TAGS: temperature measurement, temperature field, outflow gas, gas turbine,
thermocouple

ABSTRACT: This Author Certificate presents thermocouples containing a device for measuring the temperature field of a stream of outflow gases, as in a gas turbine engine (see Fig. 1 on the Enclosure). To increase the accuracy of measurement and to shorten the time of experimentation, the device is made in the form of a hollow ring covered with an external and an internal shell. The external shell serves as a power transmitter between the engine and the exhaust system and carries radially mounted thermocouples. These thermocouples measure the temperature of the gas stream in the annuli between the shells and also serve as mountings for holding the inner shell coaxially with the engine. Orig. art. has: 1 figure.

ASSOCIATION: none
Card 1/3

L 43877-65

ACCESSION NR: AF5010931

SUBMITTED: 25Mar64

ENCL: 01

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SUB CODE: IE

NO REF SOV: 000

OTHER: 000

Card 2/3

L 43877-65

ACCESSION NR: AF5010931

ENCLOSURE: 01

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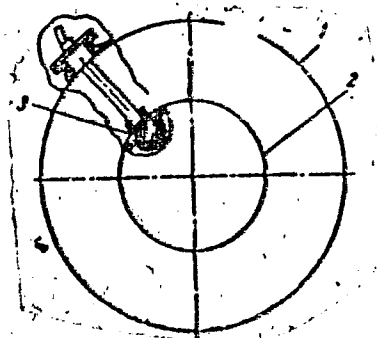


Fig. 1. 1- and 2- external and internal shells; 3- thermocouples

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ANDERS, V.R.; FROLOVSKIY, P.A.; REMNEV, V.F.; SLOBODKIN, M.S.

Automatic chromatograph for controlling the composition of
hydrocarbon gases in the production line. Khim. i tekhn. topl.
i masel 4 no.3:25-29 Mr '59. (MIRA 12:4)
(Petroleum--Refining) (Chromatographic analysis) (Automatic control)

TARASOV, Aleksey Issarionovich. Prinimali uchastiye: KUZ'MINA, A.V.;
ZIMINA, K.I.; POLYAKOVA, A.A.; IOGANSKN, A.V.; FROLOVSKIY, P.A.;
LULOVA, N.I.; L'VOVA, L.A., vedushchiy red.; MUKHINA, E.A.,
tekhn.red.

[Gases obtained in petroleum refining and methods of their
analysis] Gazy neftepererabotki i metody ikh analiza. Moskva,
Gos.nauchno-tekhn.isd-vo نفت. i gorno-toplivnoi lit-ry, 1960.
222 p. (MIRA 13:2)
(Petroleum--Refining) (Gases--Analysis)

FRCLCVSKIY, P.A.; Primali uchastiye: ANDERS, V.R.; REMNEV, V.F.;
BULAKH, Ye.S.; KHURSHUDYANTS, I.K.; YATSENKO, P.G.; TARASOV, A.I.;
IOGANSON, A.V.; LULOVA, N.I.; KURDRYAVTSEVA, N.A.

Kh.L-3 laboratory chromatograph. Khim. i tekhn. topl. i masel
6 no. 7:44-49 J1 '61. (MIRA 14:6)

1. Spetsial'noye konstruktorskoye byuro po avtomatike v nefte-
pererabotke i neftekhimii.

(Gas chromatography)

KARPOV, A.K.; FROLOVSKIY, P.A.; SHOROKHOV, N.R.; FILATOVA, Z.S.

Device for the continuous determination of the moisture content
of natural gases. Gaz. prom. 7 no.4:37-43 '62 (MIRA 17:7)

FROLOW, V.

Morphologic determination of the phase of the annual component of temperature, rainfall and runoff in Czechoslovakia. In Czech and French. p. 1.
(Rozpravy, Rada Technickych Ved. Vol. 67, no. 1. 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

ZHUKOVA, T.A.; GOZODOVA, G.Ye.; PRISYAZINA, L.A.; FROL'TSOVA, A.Ye.

Carriage of parasites in tertian malaria in the Masally
District of the Azerbaidzhan S.S.R. Med.paraz.i paraz.bol.
no.5:572-580 '61. (MIRA 14:10)

1. Iz otdela epidemiologii (i. o. zav. otdelom N.N. Dukhanina)
i klinicheskogo otdela (zav. otdelom - prof. N.W. Plotnikov)
Instituta meditsinskoy parazitologii i tropicheskoy meditsiny
imeni Ye.I. Martsinovskogo Ministerstva zdravookhraneniya
SSSR (dir. instituta - prof. P.G. Sergiyev).
(MASALLY DISTRICT--MALARIA)

OZERETSKOVSKAYA, N.N.; FROL'TSOVA, A.Ye.; TUMOL'SKAYA, N.I.

Pathogenesis of organic and systemic lesions in trichinosis.
Report No.1: The nature of trichinosis encephalitis and
meningoencephalitis; experimental research. Med.paraz. i
paraz.bol. 33 no.3:262-271 My-Je '64.

(MIRA 18:2)

1. Klinicheskiy otdel Instituta meditsinskoy parazitologii i
tropicheskoy meditsiny imeni Martsinovskogo Ministerstva
zdravookhraneniya SSSR, Moskva.

OZERETSKOVSKAYA, N.N.; FROL'TSOVA, A.Ye.; SIBILEVA, L.M.

Acrichine with novocaine in the treatment of Taeniachynchus infection. Report No.1: Acrichine and novocaine treatment of patients with normal and persistent forms of Taeniachynchus infection. Med.paraz.i paraz.bol. 33 no.4:403-408 J1-Apr '64.

(MIRA 18:3)

1. Klinicheskiy otdel Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I. Martsinovskogo Ministerstva zdravookhraneniya SSSR i kafedra gosital'noy terapii i professional'nykh zabolevaniy I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova, Moskva.

PLOTNIKOV, N.N.; OZERETSKOVSKAYA, N.N.; ALEKSEYEVA, M.I.; TURCHINS, M.Ye.;
VITEBSKIY, Ya.D.; DYAKIN, V.M.; FROL'TSOVA, A.Ye.; TUMOL'SKAYA, N.I.

Use of tepal (thymol ester of palmitic acid) in echinococcosis
in man. Sov.med. 28 no.4:129-136 Ap '65. (MIRA 18:6)

1. Klinicheskiy otdel Instituta meditsinskoy parazitologii i
tropicheskoy meditsiny imeni Martsinovskogo Ministerstva
zdravookhraneniya SSSR, kafedra propedevtiki i terapii professional'-
nykh bolezney sanitarno-gigiyenicheskogo fakul'teta I Moskovskogo
ordena Lenina meditsinskogo instituta imeni Sechenova i Kurganskaya
oblastnaya bol'nitsa.

FROL'TSOVA, A.Ye.; ASTAF'YEV, B.A.; KONOVALOVA, I.M.

Search for specific trichinelliasis therapy. Report No.1:
Acrichine, chlorophos, monomycin and a growth promoting
substance of petroleum origin in experimental trichinelliasis
of rats. Med. paraz.i paraz.bol. 34 no.4:387-389 J1-Ag '65.
(MIRA 18:12)

1. Klinicheskiy otdel i laboratoriya biologii gel'mintov
i spetsificheskogo deystviya preparatov Instituta meditsinskoy
parazitologii i tropicheskoy meditsiny imeni Ye.I.Martsinov..
skogo Ministerstva zdravookhraneniya SSSR, Moskva. Submitted
March 21, 1965.

AUTHOR: ~~Frolushkin, V.G.~~

SOV/106-58-12-6/13

TITLE: Investigation of the Statistical Structure of Images by
a Method of Division of the Field of Events
(Issledovaniye statisticheskoy struktury izobrazheniy
metodom deleniya polya sobytiy)

PERIODICAL: Elektrosvyaz', 1958, Nr 12, pp 43 - 48 (USSR)

ABSTRACT: If the area of a transmitted image equals n raster elements, then $N = 2^n$ different combinations of black and white raster elements can be formed on this area. If the probability of appearance of each combination, i.e. image, is determined, then a complete description of the statistical structure of the video-signal source would be obtained. The large value of N is an obstacle in this method, even when only small parts of the image are considered. However, if the image field is divided into parts in such a manner that each part can be considered stochastic, i.e. not depending, in a statistical sense, on the other parts, then the problem can be simplified. Parts of the image having dimensions less than those
Card 1/4 of a stochastic part are called "microparts"; parts of

SOV/106-58-12-6/13

Investigation of the Statistical Structure of Images by a Method of Division of the Field of Events

greater dimensions - "macroparts". Analysis of a micropart consists in the determination of the probabilities of all the combinations of the raster elements comprising the part. These combinations are called "elementary events". Analysis of a micropart of n raster elements consists of the measurement of a distribution function of the n th order, and with increase in the size of the micropart, practical analysis becomes impossible. To overcome this difficulty, the author proposes a method of analysis by division of the field of events. In this method, the field of events is divided in some manner into a number of parts; the parts, in their turn, are divided into groups, the groups into sub-groups, and so on. For analysis of the field of events, to the first approximation, only the probabilities of the parts are determined; all the elementary events inside each part being considered equally probable. To the second approximation, as well as the probabilities of the parts, the probabilities of the groups are also

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Investigation of the Statistical Structure of Images by a Method of
Division of the Field of Events

determined, the elementary events within the group being considered equally probable. To the third approximation, the probabilities of the sub-groups are determined, and so on. Thus, more and more data can be obtained on the statistical structure of the investigated objective. The manner in which the field of events is divided must satisfy the following two conditions: (1) The single-value condition. Each elementary event of a field N should enter into only one part, one group, one sub-group, and so on. (2) The condition of completeness. Each elementary event of the field must belong to some part, group, sub-group, etc. The author then considers the entropy obtaining an asymptotic evaluation between an upper and lower value. The general parameters - saturation and detail - are used for division of the field and formulae are produced for determination of the

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Investigation of the Statistical Structure of Images by a Method of
Division of the Field of Events

number of elementary events having the same value of
saturation and detail.

There are 1 figure and 3 references, one of which is
Soviet and 2 English.

SUBMITTED: February 5, 1958

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AUTHOR: Frolushkin, V.G.

SOV/106-59-5-9/13

TITLE: Analysis of the Statistical Structure of Textual
Photo-Telegrams (Analiz statisticheskoy struktury
tekstovyykh fototelegramm)

PERIODICAL: Elektrosvyaz', 1959, Nr 5, pp 63-70 (USSR)

ABSTRACT: In photo-telegraphy, a line-sweep of the image is used and neighbouring elements in the direction of the sweep correspond to signal values occurring at consecutive time intervals. Therefore the image can be investigated on the basis of the "field of events" for a "unit line". For the investigation, the author uses the "division of the field of events" method described in his previous work (Ref 2). By unit line the author means a chain of n raster-elements in the direction of the sweep. Previous experience has shown that if $n = 100$, then each unit line can be considered as statistically independent of the sweep sections lying to its left and to its right. The values of the generalised, image parameters - saturation and detail - were used to analyse, in the first approximation, the field of events of a unit line

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Analysis of the Statistical Structure of Textual Photo-Telegrams

containing $N = 2^{100}$ elementary events. For a more accurate analysis, the distribution of the probabilities of paired-combinations of the saturation and detail values was obtained. For a line length of 100 raster-elements, the saturation i (Ref 2) can assume any whole-number value of 0 to 100. Thus, the field of events can be broken down into 101 parts, according to the values of i . If each part is allocated a number, corresponding to the value of i , then the number of elementary events, which enter into the i -th part equals

$$M_i = C_{100}^i = \frac{100!}{i!(100 - i)!} \quad (1)$$

The features of the distribution of the probabilities of the saturation values obtained empirically for handwritten text (Fig 1a) are as follows:

1. The probability p_i reduces smoothly with increase of i .
2. The "envelope" of the distribution of p_i approaches

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Analysis of the Statistical Structure of Textual Photo-Telegrams

the abscissa comparatively slowly.

3. All possible values of i have a probability different from 0.

4. The value i equal to zero has a probability an order, or more, greater than the probability of any other saturation value.

The mean value of i equals

$$i_{av} = \sum_{i=0}^{100} p_i i = 13.5 \quad (2)$$

Fundamentally, these features hold for typed and newspaper printed texts also (Fig 1b and 1v) except that for newsprint a second maximum occurs in the region of i values between 30 and 40. This maximum is also observed to a lesser degree in typed text.

Assuming that all lines with equal saturation values are equally probable, the entropy of the unit line can be

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Analysis of the Statistical Structure of Textual Photo-Telegrams

calculated by the formula

$$H_i = \sum_{i=0}^{100} p_i \log_2 \frac{1}{p_i} + \sum_{i=0}^{100} p_i \log_2 C_{100}^i = H_i \min + H_{s(i)} \quad (3)$$

Entropy values so calculated are given in Table 1. The ratio of the upper to lower entropy values for all three cases is approximately 10. The possible values for the detail j (Ref 2) for a unit line of 100 raster-elements are

$$j = 0; 1; 2; 3; \dots 99$$

Thus, the field of events N is broken down into 100 parts according to the detail values. The number of elementary events entering into the j-th part equals

$$M_j = 2C_{99}^j \quad (4)$$

Graphs of the empirical distribution of the probabilities of the detail values for handwritten, typed and newsprint texts are produced in Fig 2a, b, and V respectively.

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Analysis of the Statistical Structure of Textual Photo-Telegrams

These graphs differ from the previous ones in Fig 1 as follows:

1. The envelope of the detail distributions approach the abscissa much more steeply.
2. A large portion of the possible values of j have zero, or approximately zero, probability.
3. All values of $j > j_{gr}$, where j_{gr} is a boundary value of j for a given type of text, have zero probability. For handwritten text, $j_{gr} = 22$; for type, $j_{gr} = 25$; for newsprint, $j_{gr} = 35$. Both graphs have the following common features: reduction of the probability with increase of i or j and exceptional values at $i = 0$ and $j = 0$. For calculation of the entropy, it is assumed that lengths having the same detail are equally probable. Values of the entropy calculated by the formula

$$H_j = \sum_{j=0}^{99} p_j \log_2 \frac{1}{p_j} + \sum_{j=0}^{99} p_j \log_2 2^{C_{99}^j} = H_{j \min} + H_s(j) \quad (5)$$

Card 5/10 are given in Table 2. The ratio of the mean values of

SOV/106-59-5-9/13

Analysis of the Statistical Structure of Textual Photo-Telegrams

the maximum to the minimum entropy is 7.7. Because all values of $j > j_{gr}$ have zero probability, in fact, a unit line contains not $N = 2^{100} \approx 10^{30}$, but N' elementary events where

$$\begin{aligned} N' &\approx 1.6 \times 10^{22} && \text{for handwritten text} \\ N' &\approx 5.6 \times 10^{23} && \text{for type text} \\ N' &\approx 2.9 \times 10^{27} && \text{for newsprint.} \end{aligned}$$

When the statistical structure is analysed by using the distribution of the probabilities of paired-combinations of saturation and detail values, a twofold division of the field of events occurs and consequently a two-dimensional distribution of the probabilities $p(i,j)$. The field of events N is divided into groups according to combinations of the saturation and detail values; events having equal values of i and j are combined into one group and events belonging to the same group are considered equally probable (this assumption of equal probability is closer to reality than the previous assumptions). The number of groups

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into which a field of events of a line of 100 raster-elements is grouped equals

$$K = \frac{1}{4} \left[2 \times 100^2 + 5 - (-1)^{100} \right] = 5001 \quad (7)$$

The number of elementary events, entering into a group with indices i and j , equals

$$M(i, j, 100) = \frac{2}{\left[\left(\frac{j-1}{2} \right)! \right]^2} \prod_{v=1}^{\frac{j-1}{2}} (i-v)(100-v-i) \quad (8)$$

$$M(i, j, 100) = \frac{2 \frac{100-j}{j}}{\left[\left(\frac{j-2}{2} \right)! \right]^2} \prod_{v=1}^{\frac{j-2}{2}} (i-v)(100-v-i) \quad (9)$$

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$j = 0, 2, 4, \dots, 98$

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To obtain more reliable results, the probabilities in the empirical distribution were averaged for all three types of image. The entropy of the two-dimensional distribution of probabilities of the i and j values was calculated by the formula:

$$H_{i,j} = \sum_{i=0}^{100} \sum_{j=0}^{99} p_{i,j} \log_2 \frac{1}{p_{i,j}} + \sum_{i=0}^{100} \sum_{j=0}^{99} p_{i,j} \log_2 M(i,j,100) \quad (10)$$

where $M(i,j,100)$ is determined by (8) and (9). The entropy values so calculated are tabulated in Table 3 and the entropy values obtained previously are also given for comparison. From examination of Table 3, it is concluded that division of the field of events by combination of saturation and detail values gives a more accurate description of the structure of a unit line. The ratio of the upper to lower entropy values in this case is reduced to 3.7. The probabilities of the saturation and detail values and of their

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combinations were determined experimentally by selective measurements. The selection was made by taking random samples of the signal of the type of telegram under investigation, which was continuously swept by a photo-telegraphic transmitter. The sample was a 100 raster-element length of the video signal quantized by amplitude and duration. The quality of the quantization was checked by writing the image of the quantized signal on a tele-photographic receiver. The duration of the elementary pulse corresponding to a sweep of one raster-element equalled 0.55 microsecond and the dimension of the raster-element in the direction of the sweep equalled 0.18 mm. The block schematic of the apparatus (Fig 4) and the idealised wave-form time

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diagrams (Fig 5) are described. There are 5 figures,
4 tables and 4 Soviet references.

SUBMITTED: 5th February 1958

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LEBEDEV, Dmitriy Savel'yevich; TSUKKERMAN, Iliya Ioannovich;
GARMAH, V.A., redsenent; ERGLUCHKIN, V.G., nauchn. red.
RASKINA, T.D., red.

[Television and information theory] Televidenie i teoriia
informatsii. Moskva, Energiia, 1965. 218 p.
(MIRA 18:4)

FROLYAKIN, I.A., agronom-entomolog

Notifying and forecasting service in the Russian Federation.
Zashch. rast. ot vred. i bol. 5 no.9:43-44 S '60. (MIRA 15:6)
(Plants, Protection of)

PROLYAKINA, Ye.A.; OVSYANNIKOVA, S.N.; GRINENKO, B.A.

At the Exhibition of Achievements of the National Economy of the
U.S.S.R. Zashch. rast. ot vred. i bol. 6 no.7:38 J1 '61.

(MIRA 16:5)

1. Starshiy metodist pavil'ona "Zemledeliye" na Vystavke dostizheniy
narodnogo khozyaystva (for Frolyakina). 2. Ekskursovod eksponatnogo
uchastka na Vystavke dostizheniy narodnogo khozyaystva (for
Ovsiannikova). 3. Direktor pavil'ona "Sadovodstvo" na Vystavke
dostizheniy narodnogo khozyaystva (for Grinenko).

(Ma spow—Exhibitions) (Plants, Protection of—Exhibitions)

NETREBA, I.; FROLYAKINA, Ye., agronom-entomolog

Methods of using insecticides, fungicides, and herbicides in pest
and weed control. Zemledelie 23 no.3:88 Mr '61. (MIRA 14:3)

1. Glavnyy metodist pavil'ona "Zemledeliye" , Vystavka dostizheniy
narodnogo khozyaystva SSSR (for Netreba).
(Insecticides) (Fungicides) (Herbicides)

FROLYAKIN, I.A.

Seminar on corn protection. Zashch. rast. ot vred. i bol. 6
no.9:56-57 S '61. (MIRA 16:5)

1. Zaveduyushchiy sektorom sluzhby signalizatsii i prognozov pri
Ministerstve sel'skogo khozyaystva RSFSR.
(Corn (Maize)--Diseases and pests)

FROLYAKINA, Ye.A.

In the "Zemledeliye" pavilion at the Exhibition of Achievements
of the National Economy of the U.S.S.R. Zashch. rast. ot vred.
i bol. 6 no.11:56-57 N '61. (MIRA 16:4)

1. Starshiy ekskursovod pavil'ona "Zemledeliye" na Vystavke
dostizheniy narodnogo khozyaystva.
(Moscow—Exhibitions)
(Plants, Protection of—Exhibitions)

NEYPERT, Yu.N.; FROLYAKINA, Ye.A.

Seminar on plant protection at the Exhibition of Achievements
of the National Economy of the U.S.S.R. Zashch. rast. ot
vred. 1 bol. 7 no.2:57-59 F '62. (MIRA 15:12)
(Plants, Protection of--Congresses)

FROLYAKINA, Ye.A.

At the Exhibition of Achievements of the National Economy
of the U. S. S. R. Zashch. rast. ot vred. i bol. 7
no.7:60-61 JI '62. (MIRA 15:11)

1. Starshiy ekskursovod povil'ona "Zemledeliye" na
Vystavke dostizheniy narodnogo khozyaystva SSSR.
(Moscow--Exhibitions)
(Plants, Protection of--Exhibitions)

FROLYAKINA, Ye.A., metodist

Visiting the stands of the "Agriculture" pavilion. Zashch. rast.
ot vred. i bol. 8 no.9:58-60 S '63. (MIRA 16:10)

1. Pavil'on "Zemledeliye" na Vystavke dostizheniy narodnogo
khozyaystva.

FROLYAKIN, I A., agronom po zashchite rasteniy

Wettable powdered chlorophos. Zashch. rast. ot vred. i bol. 9 no.9:
31 '64. (MIRA 17:11)

FROLYAKINA, Ye.; ZHIKHAREVA, Z.

Itinerant exhibition. Zashch. rast. ot vred. i bol. 10 no.9;
58-59 '65. (MIRA 18:11)

FROLYAKINA, Ye.A., metodist

In the "Agriculture" Pavilion. Zashch. rast. ot vred. 1 bol.
9 no.7:54-55 '64. (MIRA 18:2)

1. Pavil'on "Zemledeliye" na Vystavke dostizheniy narodnogo
khozyaystva SSSR.

FROM, A. A.

FROM, A.A.

Thromboembolic disease of the system fo the femoral artery treated
with intraarterial novocaine solution. Khirurgia no.5:73-74
My '54. (MIRA 7:7)

1. Is 2-go khirurgicheskogo oddeleniya TSentral'nogo ordena Lenina
instituta gematologii i perelivaniya krovi.

(PROCAINE, therapeutic use,

*thromboembolism of femoral artery, intraarterial admin.)

(ARTERIES FEMORAL, diseases,

*thromboembolism, ther., procaine, intraarterial admin.)

(THROMBOEMBOLISM,

*femoral artery, ther., procaine, intraarterial admin.)

7 R6M, H.F.

USSR / Pharmacology, Toxicology, Chemotherapeutic Agents

U-7

Abs Jour : Ref. Zh. Biol., No 2, 1958, No 8122

Author : From, A.A.

Inst :

Title : The Distribution of Penicillin in the Body

Orig Pub : V sb.: Antibiotiki, Eksperim. Klinich. Izuch. M., 1956, 235-238

Abstract : 1,200-1,300 units per kg of penicillin, the molecules of which contained S35, were administered intramuscularly, intravenously or into the femoral artery, with or without the application of a tourniquet, to healthy rabbits with turpentine-induced aseptic abscesses in the muscles of the right thigh. After 45 min and 2.5 hours the radio-activity of penicillin was determined in specimens removed from

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USSR / Pharmacology, Toxicology, Chemotherapeutic Agents

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000513810018-4

Abs Jour : Ref. Zh. Biol., No 2, 1958, No 8122

Abstract : symmetrical loci on both thighs and from the wall of the abscess. Following intravenous administration the concentrations of penicillin in both extremities of the rabbits were equally low; after intramuscular injection of the drug, the concentrations in both extremities were somewhat higher. After intraarterial infusion, the concentration on the side of administration was 2-2.5 times higher than that following intramuscular injection. The application of a tourniquet resulted in an increase in drug concentration in the tissues of a given extremity. Only by means of intraarterial injection, accompanied by application of the tourniquet, did it become possible to reach a concentration in the tissues of an extremity which was higher than that in the venous blood. A uniform penicillin distribution was not observed after intravenous or intramuscular injection in rabbits with abscesses in the thighs. Regardless of the route of administration, there was twice as much penicillin in the tissues around

Card : 2/3

AGRANENKO, V.A.; FROM, A.A.

Use of polyglukine in traumatic shock and acute blood loss. Probl.
gemat. i perel.krovi 1 no.2:55-56 Mr-Ap '56. (MLRA 10:1)

1. Iz Tsentral'nogo ordena Lenina instituta gematologii i perelivaniya
krovi Ministerstva zdavookhraneniya SSSR (dir. chlen-korrespondent
AMN prof. A.A.Bagdasarov)

(PLASMA SUBSTITUTES, ther. use
polyglukin, in traum. shock & acute blood loss)
(HEMORRHAGE
blood loss, ther., polyglukin as plasma substitute)
(SHOCK
traum., ther., polyglukin as plasma substitute)

FROM, A.A.

Intra-arterial infusions of novocaine with penicillin in the treatment of inflammatory diseases of the extremities. Khirurgiia 32 no.7:41-44 J1 '56. (MLRA 9:11)

1. Iz khirurgicheskoy kliniki (zav. - prof. D.M.Grozlov) Tsentral'nogo ordena Lenina instituta gematologii i perelivaniia krovi (dir. - chlen-korrespondent AMN SSSR prof. A.A.Bogdasarov)

(ABSCCESS, ther.

procaine penicillin in abscess of extremities)

(PENICILLIN, ther. use

same)

FROM, A.A. (Cand. of Med. Sci.)

"On the Question of Diffusion of Penicillin in the Organism,"

p. 235 Ministry of Health USSR Proceedings of the Second All-Union Conference on Antibiotics, 31 May - 9 June 1957. p. 405, Moscow, Medgiz, 1957.

FROM A.D.

"The Change of Unconditioned Vascular Reflexes When Under the Effect of Transfusion of Blood and Its Substitutes," by A. A. From, Central Order of Lenin Institute of Hematology Blood Transfusion (director, A. A. Bagdasarov, Corresponding Member, Academy of Medical Sciences USSR), Ministry of Health USSR, Problemy Gematologii i Perelivaniya Krovi, Vol 2, No 1, Jan/Feb 57, pp 51 - 53

Comparative studies were conducted on unconditioned cold vascular reflexes of patients under the influence of intravenous transfusions of blood, plasma preparations, therapeutic serum of Belen'kiy, antishock fluid TsOLIPK, and physiological salt solution.

Results proved that strong inhibition of unconditioned cold vascular reflexes arise after the transfusion of whole blood, and in certain cases a paradoxical phase appeared. This inhibition of vascular reflexes lasts 24 - 48 hours. Transfusion of native plasma and antishock fluid TsOLIPK 6a exert analogous reactions but of a shorter duration. Transfusion of therapeutic serum of Belen'kiy is accompanied by lesser inhibition of unconditioned cold vascular reflexes which disappear within one day. Physiological salt solution causes either insignificant decrease or no change in unconditioned cold vascular reflexes.

Sum. 1305

FROM A.A.

U-3

USSR/Shock

Abs Jour : Ref Zhur - Biol., No 6, 1958, No 17671

Author : Saburova - Danileva, I.V., Frem, A.A.

Inst : Not Given

Title : Experimental Use of Polyglucin in Traumatic Shock.

Orig Pub : Probl. gematol. i perolivaniya krovi, 1957, 2, No 2, 54-55.

Abstract : From a total number of 155 patients admitted with manifestations of shock, polyglucin (P; compound similar to dextran but without its side effects) was used in dosages up to 2-3 l alone or with addition of blood. Of 11 patients with the 3rd-4th degree shock, 9 recovered after the administration of P, whereas 23 of 35 patients recovered after the infusion of P and blood. When the antishock solution NT was used only 1 of 7 patients survived. The administration of P is indicated when Hb falls below 8 gm.%. The simultaneous administration of various antishock solutions is unsuitable (only 8 of 23 patients with the 3rd-4th degree shock recovered). The infusion of the physiologic solution following the

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Sci Res Inst First Aid in Shock

USSR/Shock

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000513810018-4

Abs Jour : Ref Zhur - Biol., No 6, 1958, No 28671

administration of P is contraindicated, since this weakens functions of the heart as a result of overloading with bulky fluid.

Card : 2/2

COUNTRY :USSR
 CATEGORY :Human and Animal Physiology, Blood
 ABS. JOUR. : RZhBiol., No. 5 1959, No. 21967
 AUTHOR :From, A.A.; Murazyan, R.I.
 INST. :
 TITLE :Clinical Reactions to Polyglucine.

T

ORIG. PUB. :Klinich. meditsina, 1957, 35, No. 7, 57--59

ABSTRACT : Analysis of 533 transfusions of 85 different lots of polyglucine showed that the blood-substitute was not primarily reactogenic or anaphylactogenic. Slight reactions were noted in 3 cases at the initial transfusion (0.5%). No pathological changes in the organs were detected in association with utilization of polyglucine. Intravenous injection of large doses of polyglucine (up to 2000 ml) into 273 patient failed to produce hemophilia in a single case. Polyglucine transfusions resulted in a temporary shortening of blood clotting, which returned to normal after 3 to 24 hours.

Card:

1. Iz khirurgicheskoy kliniki (sav. - prof. D.M.Grozdov) TSentral'nogo ordena Lenina instituta gematologii i perelivaniya krovi Ministerstva zdavookhraneniya SSSR (dir. - chlen-korrespondent AMN SSSR prof. A.A.Bagdasarov).